

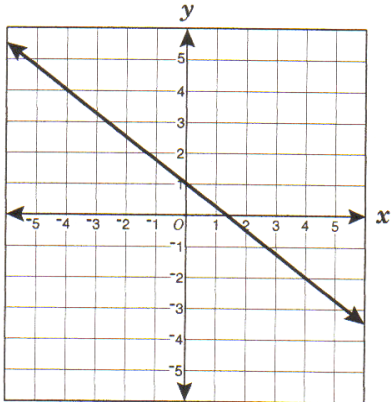
SOL Mini-Challenge

Equations and Inequalities A.6, A.8

Read and solve each question.

1.

The graph of $y = -\frac{3}{4}x + 1$ is shown.



If the line in the graph is shifted up 2 units, which is the equation of the new line?

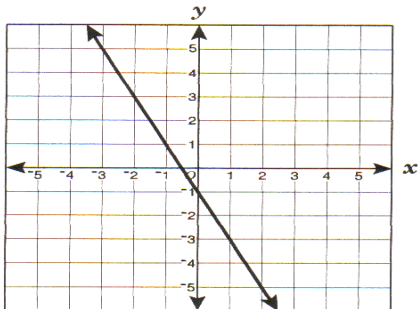
A $y = \frac{3}{4}x + 3$

B $y = \frac{3}{4}x + 2$

C $y = -\frac{3}{4}x + 2$

D $y = -\frac{3}{4}x + 3$

2.



Which best represents the equation of the line shown?

F. $y = 2x + 1$

G. $y = 2x - 1$

H. $y = -2x + 1$

J. $y = -2x - 1$

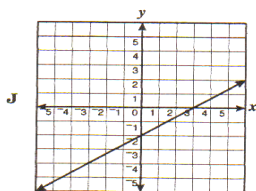
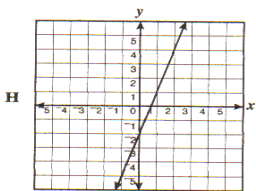
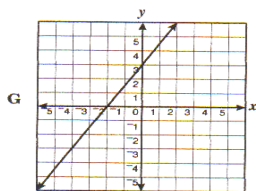
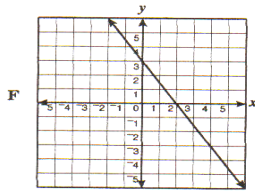
SOL Mini-Challenge—continued

3. Which is an equation of a line that has a slope of $-\frac{1}{2}$ and contains the point (2, 3)?

- A. $y = 2x - \frac{1}{2}$
- B. $y = -\frac{x}{2} + 4$
- C. $y = \frac{x}{2} + 3$
- D. $y = 3x + 2$

4.

Which is the graph of a line that appears to have a slope of 3 and y-intercept -2?



SOL Mini-Challenge—continued

5. Which is an equation for the line that contains the points $(-3, 5)$ and $(1, -3)$?
- A. $y = -x + 2$
 - B. $y = -2x - 1$
 - C. $y = -\frac{1}{2}x - \frac{3}{2}$
 - D. $y = \frac{3}{2}x - \frac{9}{2}$
6. What are the x and y intercepts for the line $2x + 4y = -8$?
- F. $(2, 0)$ and $(0, 4)$
 - G. $(-4, 0)$ and $(0, -2)$
 - H. $(4, 0)$ and $(0, 2)$
 - J. $(-4, -2)$ and $(4, 2)$
7. Which is an equation for the line containing points $(0, 0)$ and $(6, -4)$?
- A. $y = 0$
 - B. $x = 0$
 - C. $y = \frac{2}{3}x$
 - D. $y = -\frac{2}{3}x$
8. Which is an equation for the line with an undefined slope and containing the point $(4, 2)$?
- F. $x = 4$
 - G. $y = 2$
 - H. $y = 4x$
 - J. $y = \frac{1}{2}x$
9. Which of the following equations has an x -intercept of 8?
- A. $4x + 3y = 24$
 - B. $8x - 2y = 18$
 - C. $3x + 4y = 24$
 - D. $2x + 6y = 18$
10. Which is an equation for the line containing the points $(8, 6)$ and $(3, 6)$?
- F. $x = 6$
 - G. $y = 6$
 - H. $y = -\frac{2}{3}x + 8$
 - J. $x = 3$